

## The Camaenidae: A Diverse Family of Land Mollusks (Part 1). Richard L. Goldberg

The Camaenidae Moellendorff, 1898, are a large and widespread family of land mollusks, exhibiting an extremely diverse range of shape, form and size. Some of the popular genera included in this group are *Pleurodonte* of the West Indies, Central and South America, *Obba* of the Philippines and north central Indonesia, *Papuina* of New Guinea and the Solomon Islands, *Amphidromus* of southeast Asia, Philippines and Indonesia, and the Indo-Chinese genus *Camaena*, among others. There is an absence of Camaenid species from Tasmania, Southwest Australia, Argentina, Chile, all of the African Continent and the Malagasy Republic. A synonym of Camaenidae is *Pleurodontidae* von Ihering, 1912.

The Camaenids' diversity of shell structure and shape rival that of any other family of terrestrial mollusks. The type species of the genus *Camaena* Albers, 1850, *C. cicatricosa* (O.F. Mueller, 1774) (Fig. 1), is in fact a sinistral species. The genus *Camaena* is made up of rather large, thick-shelled species with a center of distribution in Southeast Asia. Both sinistral and dextral forms are found in the genus. Many form names have been proposed for *C. cicatricosa*, but their validity is doubtful since the species varies greatly in individual populations. The habitat data sent to me for some specimens collected in Canton, China was, "taken from garbage dump!"

A subgenus of *Camaena*, *Pseudobba* Moellendorff, 1891, is an interesting group restricted to the high elevations of the northern Celebes and Sangir, Indonesia. The type species of the subgenus is *P. mamilla* (Férussac) (Fig 2). The nominate forms of this group are characterised by their typical Camaenid shape, and wrinkled surface. However, Rench (1933) described a smooth form of *P. mamilla* called *crassiventris* from Mengkoka-Gebirge, Celebes. Other forms of *P. mamilla* have been described for wider and narrower specimens. The largest species of this subgenus is *P. quoyi* (Deshays), reaching almost two inches in diameter. *Pseudobba* species are rare in collections, probably due to their inaccessible habitat.

BELOW: *Chloritis unguina* (Linnaeus), Ceram, Indonesia, 44 mm.



Camaena  
cicatricosa  
(Mueller),  
Volskpark,  
Canton,  
China,  
46 mm.



Camaena  
(Pseudobba)  
mamilla  
(Férussac),  
Celebes,  
Indonesia.  
37 mm.



Chloritis  
maforensis  
(Tapparone  
Canefri), Sorong,  
Western New  
Guinea (Irian  
Jaya), 25 mm.



Albersia granulata  
(Quoy &  
Gaimard),  
Waigeo Island,  
off Western  
New Guinea,  
54 mm.



The genus *Chloritis* Beck, 1837, is another group of rather large, solid helical-shaped mollusks with a distribution from New Guinea, Soloman Islands, through Indonesia. *C. unguina* (Linnaeus, 1857) (Fig. 3) is the type species of the genus, and is characterised by its deep umbilicus and sunken spire. It is reported to be found in the Moluccas and Indonesia (Tapparone Canefri, 1883). Specimens at the American Museum of Natural History have the basic data of Ceram. I know of no recently collected specimens of *C. unguina*, and it is very rare in private collections.

Another similar species of the genus *Chloritis*, is *C. maforensis* (Tapparone Canefri, 1886) (Fig. 4), from Western New Guinea (now Irian Jaya, Indonesia). This striking species also has a deep umbilical region and sunken spire. The type locality is Mafor Island, Western New Guinea. *C. circumdata* (Férussac) is an almost identical species from the neighboring Aru Islands, and *C. maforensis* may be in fact a subspecies or form of *circumdata*. Since no specimens have been collected recently, further research is needed to determine the exact identity of the two species.

Not all species of *Chloritis* exhibit the sunken spire and deep umbilicus. Seven subgenera cover a wide variety of other species found in Indonesia, Australia, the Soloman Islands and New Guinea.

A genus closely related to *Chloritis* is *Albersia* H. Adams, 1865. The type species is *A. granulata* (Quoy & Gaimard) (Fig. 5). This group is characterised by its rather globose helical, unicolored and thin shells. The type locality of *A. granulata* is Port Dorey, New Guinea, island of Waigeo, (Western New Guinea). The species of *Albersia* range from New Guinea to the Moluccas. Not visible in the illustration of *A. granulata* is the fine granular, almost stippled surface of the shell. Specimens of *A. granulata* are considered quite rare, also due to their inaccessible habitat.

In future parts of this article, other genera of world wide Camaenidae will be discussed. In the next part, I will cover the New World genera including *Pleurodonte*, *Labrinthus*, *Zachrysis*, and other related forms.

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